marriage practices, labour-related seasonal movement, or mass population movement during times of turmoil.
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Measuring sexual dimorphism in the hominoid proximal ulna using a discriminant function analysis.

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Sexual dimorphism studies focusing on primates have largely been performed on the skull and dental skeleton; less is known about the primate postcranial skeleton in terms of skeletal differences between the sexes. While research suggests that the pattern of dimorphism in the distal humerus is indicative of the pattern of dimorphism in the entire elbow joint, no studies comparing dimorphism between the distal humerus and proximal ulna have been performed in hominoids. In this study, a new, validated method of measuring sexual dimorphism in the proximal ulna of humans will be performed to compare the sexual size dimorphism of the proximal ulna in the hominoid species Pan troglodytes and Gorilla gorilla using a discriminant function analysis. Specimens used in the study were collected from the Cleveland Museum of Natural History. Overall, 36 chimpanzee and 50 gorilla left proximal ulnas were measured. Using the discriminant function analysis, female chimpanzees (N5 23) were correctly classi□ed 73.9% of the time, whereas males (N5 13) were correctly classifed 76.9% of the time, giving an overall classi□cation success of 75.0%. Both female (N5 24) and male (N5 26) gorillas were correctly classi□ed 100% of the time. A low percentage of classi□cation in chimpanzees may be related to small sample sizes and lower sexual size dimorphism overall. Future research hopes to address these issues. The high success of classi□cation in gorillas suggests that the utilization of discriminant function analyses could be highly ef□cient in categorizing other skeletal elements into sex.

Using automated high density quasi-landmarks to test for associations between normal facial feature variation, genetic ancestry and candidate gene variation in Cape Verdeans.

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A new method of summarizing facial feature variation from 3d photos was compared to traditional, low-density manually placed landmark methods in a sample of 248 individuals, ages 18-40, from the Cape Verde islands, which have a history of extensive European and African admixture. For all individuals, DNA was collected and proportional European and African genetic ancestry was estimated using AIMs. 3d photographs of faces were acquired using the 3dMDface imaging system. Traditional landmark coordinate data from 22 standard anthropometric landmarks was collected as well as Principal Component scores from an analysis of 10,000 high-density quasi-landmarks, which are collected over the full facial surface and provide a better representation of normal morphological variation in the entire face.
ANOVA was used to test for associations between measures of facial variation and genetic ancestry estimates, conditioning sex, age, height, weight and body mass index. These results for Cape Verde were compared to two other West African/European admixed population samples, namely African Americans and Brazilians. The Cape Verde individuals share some of the facial trait/genetic ancestry correlations with the other two populations but also exhibit some distinct differences in facial morphology, particularly near the nose. In addition, we examined 30 craniofacial selection-nominated candidate genes that are known to be involved in Mendelian craniofacial dysmorphologies and to show high allele frequency differences between West African and European populations for admixture linkage to variation in facial traits. ANOVA results reveal distinct patterns of facial variation associated with different candidate genes.
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Resettlement contributes to conservation and development in Korup National Park, Cameroon.

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Critics of the "people-free parks" approach to biodiversity conservation argue that schemes to resettle park residents have caused widespread human suffering and are altogether unsuccessful. They contend that human presence inside protected areas is compatible with conservation goals. A resettlement scheme in Cameroon's Korup National Park (KNP) has been criticized for being unnecessary and a detriment to local livelihoods. We surveyed forests, households, hunters, and bushmeat markets and conducted interviews to re-evaluate the effectiveness, from a biological and economic perspective, of the 2003 resettlement of Ekundukundu village. We found that hunting by people living inside and on the periphery of KNP is threatening large-bodied vertebrate species, especially primates. Comparing pre- and post-resettlement economic activities, we found that the number of animals harvested by Ekundukundu hunters, the time villagers invested in hunting, and the amount of income derived from hunting has declined. These changes are associated with an increase in the diversity of alternative income generating activities, which have compensated most resettled households for the loss of income from hunting. Although some Ekundukundu villagers and hunters from other villages still hunt in the former village area, hunting intensity remains relatively low and primate diversity is high there. Resettlement has reduced hunting by Ekundukundu villagers, encouraged threatened species to use the former village area, and improved the economic development for many resettled households. Resettlement in KNP appears to have supported both conservation and development agendas. We discuss how to improve the implementation and monitoring of future resettlement programs in KNP.
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Environment explains subsistence tool use in Pan troglodytes.

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Cultural, genetic, and environmental factors in□uence tool use. However, we lack a precise understanding of the mechanisms underlying said factors